



# Coalition Interoperability: a Modeled Approach

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Report Documentation Page			Form Approved OMB No. 0704-0188		
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1. REPORT DATE <b>2006</b>	2. REPORT TYPE		3. DATES COVERED <b>00-00-2006 to 00-00-2006</b>		
4. TITLE AND SUBTITLE <b>Coalition Interoperability: a Modeled Approach</b>			5a. CONTRACT NUMBER		
			5b. GRANT NUMBER		
			5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S)			5d. PROJECT NUMBER		
			5e. TASK NUMBER		
			5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>Office of the Assistant Secretary of Defense,networks and Information Integration,Washington,DC,20301</b>			8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)			10. SPONSOR/MONITOR'S ACRONYM(S)		
			11. SPONSOR/MONITOR'S REPORT NUMBER(S)		
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release; distribution unlimited</b>					
13. SUPPLEMENTARY NOTES <b>The original document contains color images.</b>					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES <b>20</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			



# Agenda

- History
- Model
- Systems
- Approach
- Results
- Way Ahead



# Historical Context

- Acting ASD and USCENTCOM J6
- ISAF and CJTF-76 in fall 2004
- NC3 Board
- ACT
- Develop Proposal
- Use C2IEDM
- Demo in summer 2005



# Historical Context

- Proposal – March 2005
- Spiral, leverage from June 2005
- Funding – August 2005
- Testing – fall –winter 2005/2006
- Demonstrations – Greding, Stavanger
- Go Live – July 2006
- Demonstration – Afghanistan – November 2006



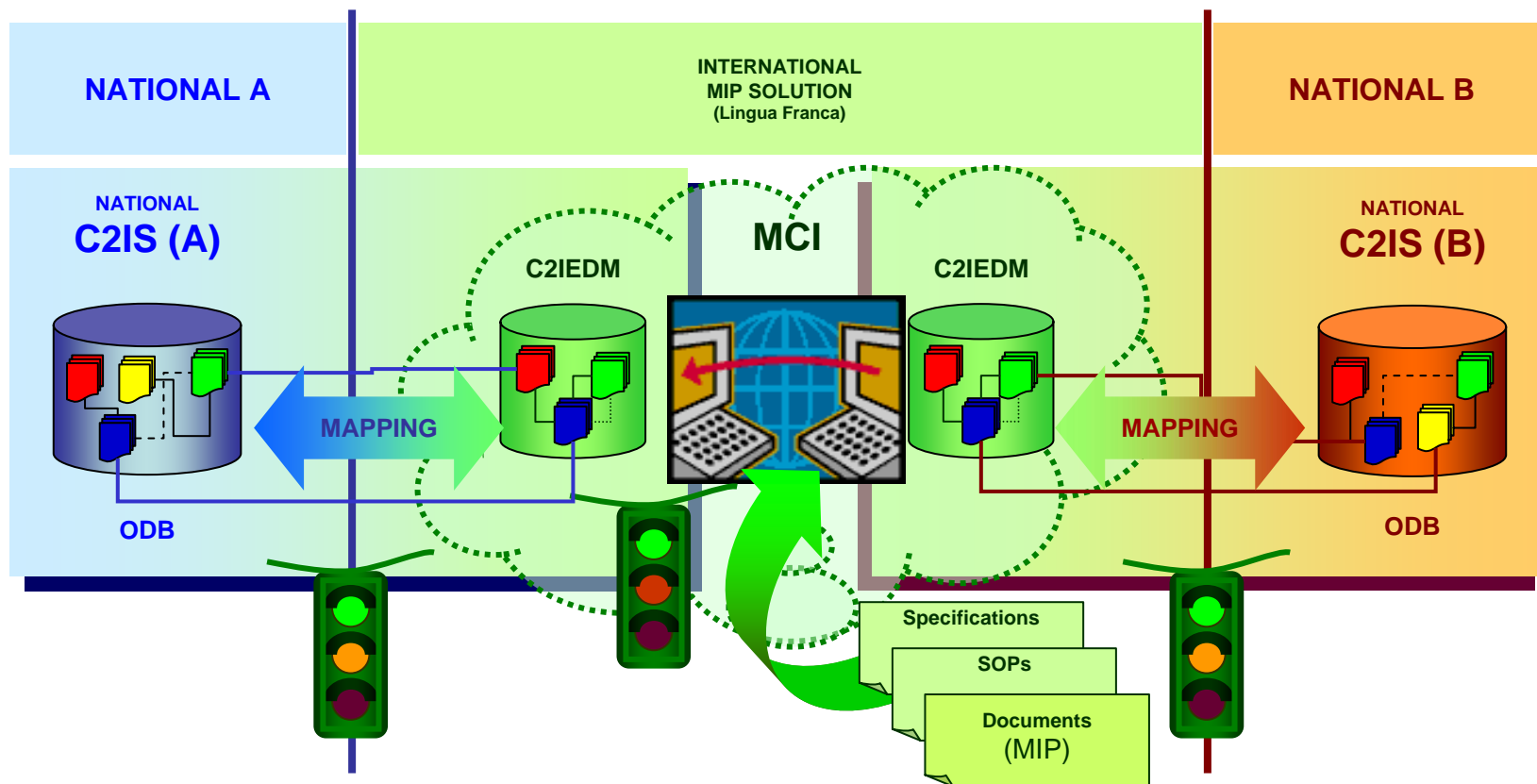
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# Operational Concept





# Systems

- Land Command and Control Information Services (LC2IS) Prototype – developed in-house at NC3A to inform the NSIP process
- Laptop common hardware





# Systems

- Situational Awareness Data Interchange Data Exchange Server
- Mediation service for legacy systems to interface with C2IEDM-based systems
- Sun, Unix based Global Command and Control System
- MIP injector

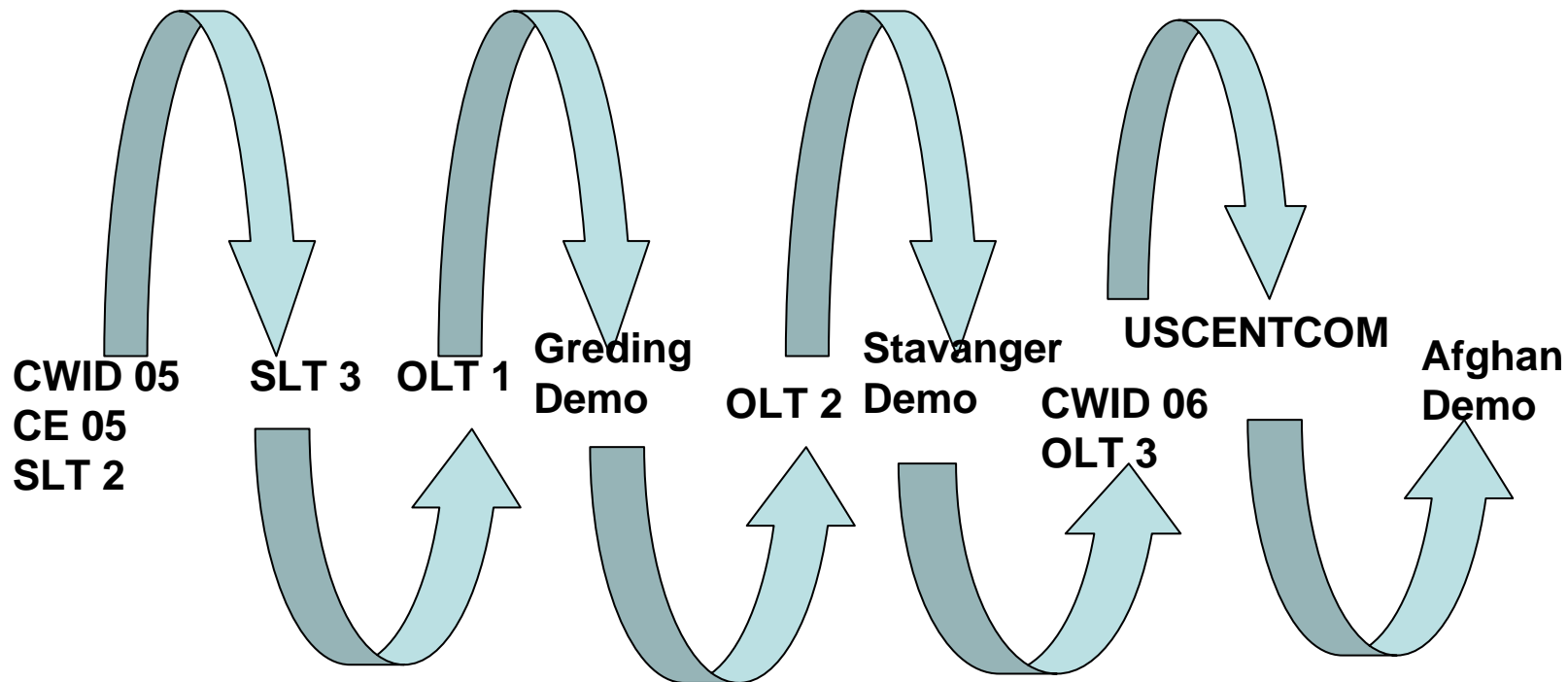


# Systems

- Maneuver Control System (MCS) v 6.4
- Army Battle Command System (ABCS)
- Program Manager Battle Command
- Corps thru Battalion COP, planning, OPORD & OPLAN development

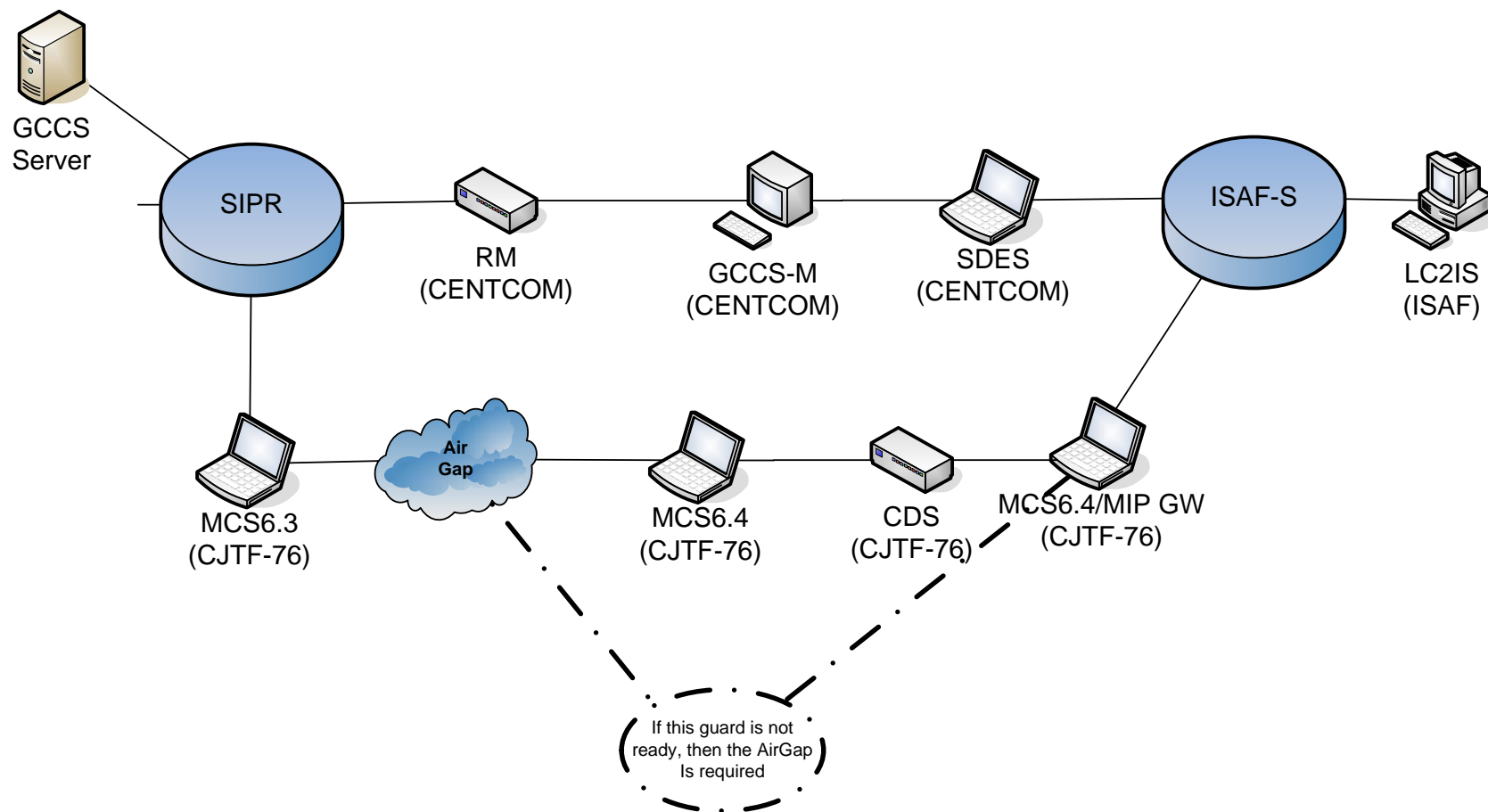


# Spiral Development Approach





# Architecture





# Results

- Land Command and Control Information Service (LC2IS) – NATO Prototype passed Operational Assessments, OLT and SLT
- Performed flawlessly at Greding, Stavanger
- MCS V6.4 confirmed interoperability
- Situation Awareness Data Interchange Data Exchange Server is a SOA-based semantic mediation service that confirmed its ability to connect legacy systems to C2IEDM based systems.



# Results

- LC2IS Prototype readied for demonstration and experimentation on time and within budget
- SADI/SDES functionality on time and within budget
- MCS v 6.4 confirmed functionality
- ACT an essential actor for transformation in NATO



# Results

- Glide path to demonstrate capabilities in Afghanistan
- Support further experimentation – continue to nudge operational community to experiment, demo, utilize, expand on success
- MIP in ascendancy – poised to reach full potential of the model and specifications



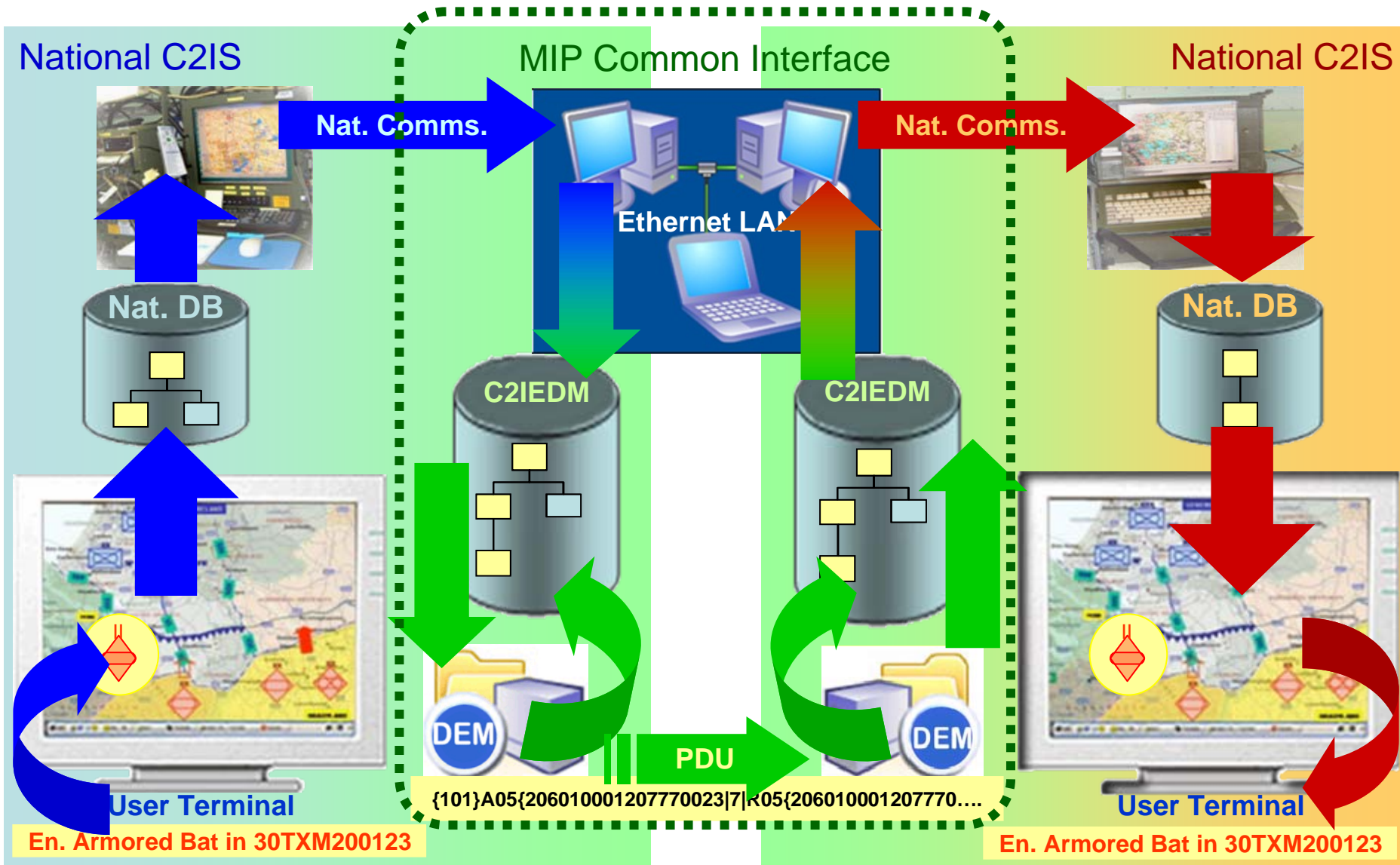
# Way Ahead

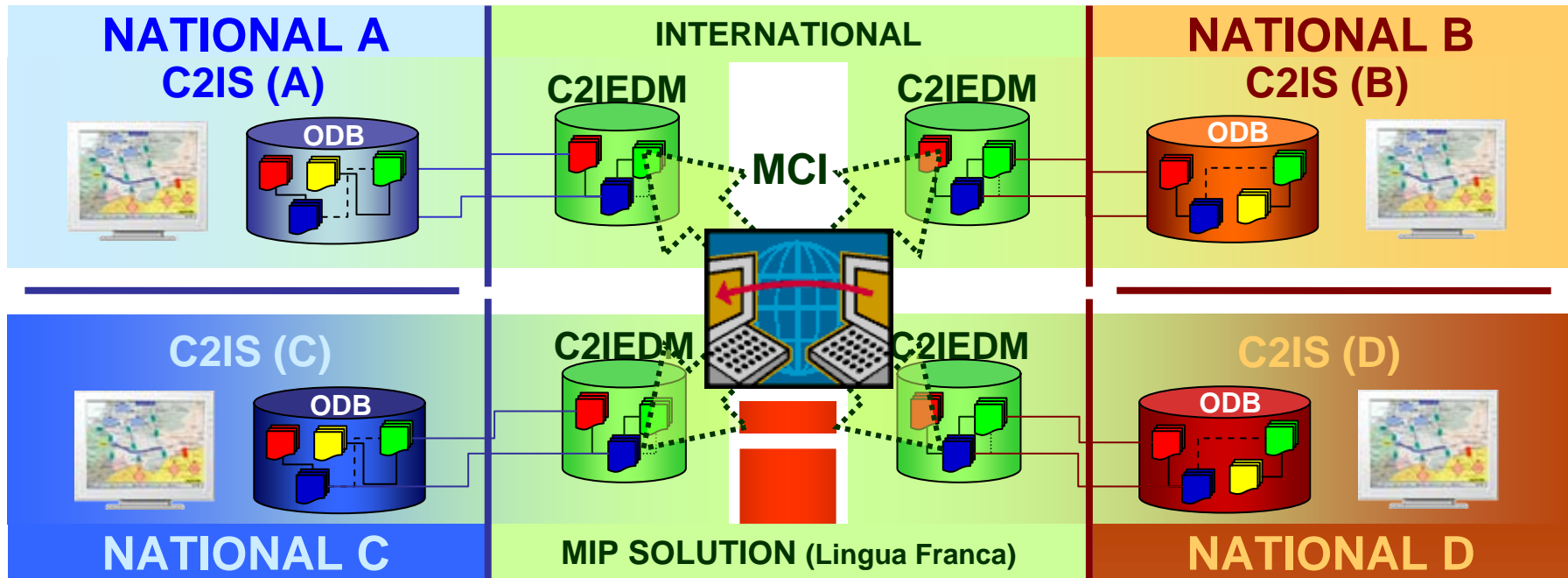
- Demo system in Theater
- “Seed Corn” for future experimentation
  - National implementations of the 25 members
  - Joint Warfare Centre
  - NATO Response Force
- Continue to nudge and leverage full potential of systems
- Feed requirements to industry
- First rate NATO System





- Other Points
- Backups





UNIQUE COMMON PICTURE



COMMON UNDERSTANDING



# Concept End-State

Effective C2 for international operations

Shared Tactical Picture

Automatic  
Exchange Mechanism

Common  
Data  
Model

Common  
Data  
Model

National  
Implementation  
(Nation A)

National  
Implementation  
(Nation B)

COLLABORATION

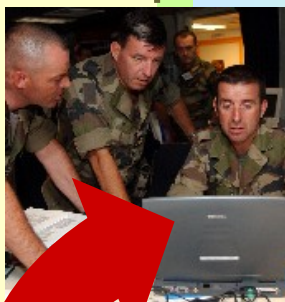
COMMON UNDERSTANDING

Commander  
(Nation A)

Staff  
Officers  
(Nation A)

Staff  
Officers  
(Nation B)

Commander  
(Nation B)



# Concept MCI (co-located)

